

SECTION 32 05 16

**AGGREGATE FOR SURFACE TREATMENTS**

**PART 1 - GENERAL**

**1.1 DESCRIPTION**

- A. This item establishes the requirements for aggregates to be used in the construction of surface treatments.

**1.2 MEASUREMENT AND PAYMENT**

- A. Aggregates will not be paid for separately but will be considered as part of the unit price bid for "One Course Surface Treatment".

**PART 2 – PRODUCTS**

**2.1 MATERIALS**

- A. GENERAL: Aggregates shall be composed of sound and durable particles of gravel, crushed gravel, crushed stone, crushed slag, burned clay, burned shale or natural limestone rock asphalt. These materials shall contain not more than one (1) percent by weight of organic matter (other than native bitumen), clays, loam or pebbles coated therewith and shall contain not more than five (5) percent by weight of any one of or combination of slate, shale, schist or soft particles of sandstone when tested in accordance with Texas Highway Department Test Method Tex-217-F.

The natural limestone rock asphalt aggregate furnished shall have an average bitumen content from four to eight (4 - 8) percent by weight of naturally impregnated asphalt, as determined by Texas Highway Department Test Method Tex-215-F, and shall contain not more than two (2) percent by weight of any one of or combination of iron pyrites, or other objectionable matter, as determined by Texas Highway Department Test Method Tex-217-F.

No aggregate shall contain a total of more than five (5) percent by weight of impurities or objectionable matter listed above.

The percent of wear, as determined by Texas Highway Department Test Method Tex-410-A, for each of the materials shall not exceed thirty-five (35) percent.

The percent of wear on natural limestone rock asphalt aggregate, as determined by Texas Highway Department Test Method Tex-410-A, shall be made on that portion of the material retained on the No. 4 sieve, having a naturally impregnated asphalt content of less than one (1) percent.

Crushed gravel shall have a minimum of eighty-five (85) percent of the particles retained on the No. 4 sieve with at least on (1) crushed face.

**B. AGGREGATE TYPES:**

The various types of aggregates are identified as follows:

- TYPE A aggregate shall consist of gravel, crushed slag, crushed stone or natural limestone rock asphalt.
- TYPE B aggregate shall consist of crushed gravel, crushed slag, and crushed stone or natural limestone rock asphalt.
- TYPE C aggregate shall consist of gravel, crushed slag or crushed stone.
- TYPE D aggregate shall consist of crushed gravel, crushed slag or crushed stone.
- TYPE E aggregate shall consist of natural limestone rock asphalt.
- TYPE F aggregate shall consist of burned clay or burned shale.

**C. AGGREGATE GRADES**

When tested by Texas Highway Department Test Method Tex-200-F, the gradation requirements for the several grades of aggregate shall be as follows:

**PERCENT BY WEIGHT**

<b>GRADE 1:</b>	Retained on 1" sieve	0
	Retained on 7/8" sieve	0 - 2
	Retained on 5/8" sieve	15 - 45
	Retained on 3/8" sieve	85 - 100
	Retained on No. 4 sieve	95 - 100
	Retained on No. 10 sieve	98 - 100
<b>GRADE 2:</b>	Retained on 7/8" sieve	0
	Retained on 3/4" sieve	0 - 2
	Retained on 1/2" sieve	20 - 35
	Retained on No. 4 sieve	85 - 100
	Retained on No. 10 sieve	98 - 100
<b>GRADE 3:</b>	Retained on 3/4" sieve	0
	Retained on 5/8" sieve	0 - 2
	Retained on 1/2" sieve	5 - 20
	Retained on No. 4 sieve	85 - 100
	Retained on No. 10 sieve	98 - 100
<b>GRADE 4:</b>	Retained on 5/8" sieve	0
	Retained on 1/2" sieve	0 - 2
	Retained on 3/8" sieve	5 - 25
	Retained on No. 4 sieve	85 - 100
	Retained on No. 10 sieve	98 - 100

**PERCENT BY  
WEIGHT**

<b>GRADE 5:</b>	Retained on 1/2" sieve Retained on 3/8" sieve Retained on No. 4 sieve Retained on No. 10 sieve	0 0 - 2 40 - 85 98 - 100
<b>GRADE 6:</b>	Retained on 1/2" sieve Retained on 3/8" sieve Retained on No. 4 sieve Retained on No. 10 sieve Retained on No. 20 sieve	0 0 - 2 5 - 40 70 - 100 99 - 100
<b>GRADE 7:</b>	Retained on 1/4" sieve Retained on No. 4 sieve Retained on No. 20 sieve	0 0 - 10 25 - 55
<b>GRADE 8:</b>	Retained on No. 4 sieve Retained on No. 10 sieve Retained on No. 20 sieve	0 0 - 10 10 - 55

**END OF SECTION**